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RAW SEQUENCE LISTING   DATE: 08/08/2002
PATENT APPLICATION: US/10/002,784A   TIME: 13:45:10

Input Set : A:\Sequence.txt
Output Set: N:\CRF4\08082002\J002784A.raw

W--> 3 /33
  10 <110> APPLICANT: Ulrich, Robert G.
  12 <120> TITLE OF INVENTION: Bacterial Superantigen Vaccines
  14 <130> FILE REFERENCE: 003/233/SAP
  16 <140> CURRENT APPLICATION NUMBER: 10/002,784A
  18 <141> CURRENT FILING DATE: 2001-11-26
  20 <150> PRIOR APPLICATION NUMBER: 08/882,431; 09/144,776
W--> 22 <151> PRIOR FILING DATE: 97-06-25; 98-09-01
  24 <160> NUMBER OF SEQ ID NOS: 40
  26 <170> SOFTWARE: Apple Macintosh Microsoft Word 6.0
  28 <210> SEQ ID NO: 1
  30 <211> LENGTH: 830
  31 <212> TYPE: DNA
  32 <213> ORGANISM: Artificial sequence
  33 <220> FEATURE:
  34 <223> OTHER INFORMATION: mutant staphylococcal enterotoxin A periplasmic
  35 <400> SEQUENCE: 1
  37 atgaaaaaaa cagcatttac attacttta ttcattgccc   40
  38 taacgttgac aacaagtcca cttgtaaatg gtagcgagaa   80
  39 aagcgaagaa ataaatgaaa aagatttgcg aaaaaagtct   120
  40 gaattgcagg gaacagcttt aggcaatctt aaacaaatct   160
  41 attattacaa tgaaaaagct aaaactgaaa ataaagagag   200
  42 tcacgatcaa tttcgacagc atactatatt gtttaaaggc   240
  43 tttttacag atcattcgtg gtataacgat ttattagtac   280
  44 gttttgattc aaaggatatt gttgataaat ataaagggaa   320
  45 aaaagtagac ttgtatggtg cttatgctgg ttatcaatgt   360
  46 gcgggtggta caccaaacaa aacagcttgt atgtatggtg   400
  47 gtgtaacgtt acatgataat aatcgattga ccgaagagaa   440
  48 aaaagtgccg atcaatttat ggctagacgg taaacaaaat   480
  49 acagtacctt tggaaacggt taaaacgaat aagaaaaatg   520
  50 taactgttca ggagttggat cttcaagcaa gacgttattt   560
  51 acaggaaaaa tataatttat ataactctga tgttttgat   600
  52 gggaaggttc agaggggatt aatcgtgttt catacttcta   640
  53 cagaaccttc ggttaattac gatttatttg gtgctcaagg   680
  54 acagtattca aatacactat aagaatata tagagataat   720
  55 aaaacgatta actctgaaaa catgcatatt gatatatatt   760
  56 tatatacaag ttaaacatgg tagttttgac caacgtaatg   800
  57 ttcagattat tatgaaccga taataatcta   830
  60 <210> SEQ ID NO: 2
  62 <211> LENGTH: 257
  63 <212> TYPE: PRT
  64 <213> ORGANISM: Artificial sequence
  65 <220> FEATURE:

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/002,784A

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66 <223> OTHER INFORMATION: mutant staphylococcal enterotoxin A periplasmic
67 <400> SEQUENCE: 2
69 Met Lys Lys Thr Ala Phe Thr Leu Leu Leu
70 1   5   10
71 Phe Ile Ala Leu Thr Leu Thr Thr Ser Pro
72   15   20
73 Leu Val Asn Gly Ser Glu Lys Ser Glu Glu
74   25   30
75 Ile Asn Glu Lys Asp Leu Arg Lys Lys Ser
76   35   40
77 Glu Leu Gln Gly Thr Ala Leu Gly Asn Leu
78   45   50
79 Lys Gln Ile Tyr Tyr Tyr Asn Glu Lys Ala .
80   55   60
81 Lys Thr Glu Asn Lys Glu Ser His Asp Gln
82   65   70
83 Phe Arg Gln His Thr Ile Leu Phe Lys Gly
84   75   80
85 Phe Phe Thr Asp His Ser Trp Tyr Asn Asp
86   85   90
87 Leu Leu Val Arg Phe Asp Ser Lys Asp Ile
88   95   100
89 Val Asp Lys Tyr Lys Gly Lys Lys Val Asp
90   105   110
91 Leu Tyr Gly Ala Tyr Ala Gly Tyr Gln Cys
92   115   120
93 Ala Gly Gly Thr Pro Asn Lys Thr Ala Cys
94   125   130
95 Met Tyr Gly Gly Val Thr Leu His Asp Asn
96   135   140
97 Asn Arg Leu Thr Glu Glu Lys Lys Val Pro
98   145   150
99 Ile Asn Leu Trp Leu Asp Gly Lys Gln Asn
100   155   160
101 Thr Val Pro Leu Glu Thr Val Lys Thr Asn
102   165   170
103 Lys Lys Asn Val Thr Val Gln Glu Leu Asp
104   175   180
105 Leu Gln Ala Arg Arg Tyr Leu Gln Glu Lys
106   185   190
107 Tyr Asn Leu Tyr Asn Ser Asp Val Phe Asp
108   195   200
109 Gly Lys Val Gln Arg Gly Leu Ile Val Phe
110   205   210
111 His Thr Ser Thr Glu Pro Ser Val Asn Tyr
112   215   220
113 Asp Leu Phe Gly Ala Gln Gly Gln Tyr Ser
114   225   230
115 Asn Thr Leu leu Arg Ile Tyr Arg Asp Asn

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Input Set : A:\Sequence.txt
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116                    235                 240
117 Lys Thr Ile Asn Ser Glu Asn Met His Ile
118                    245                 250
119 Asp Ile Tyr Leu Tyr Thr Ser
120                    255
122 <210> SEQ ID NO: 3
124 <211> LENGTH: 757
125 <212> TYPE: DNA
126 <213> ORGANISM: Artificial sequence
127 <220> FEATURE:
128 <223> OTHER INFORMATION: mutant staphylococcal enterotoxin A cytoplasmic
129 <400> SEQUENCE: 3
131 atgagaaaag cgaagaaata aatgaaaaag atttgcgaaa     40
132 aaagtctgaa ttgcagggaa cagctttagg caatcttaaa     80
133 caaatctatt attacaatga aaaagctaaa actgaaaata    120
134 aagagagtca cgatcaattt cgacagcata ctatattgtt    160
135 taaaggcttt tttacagatc attcgtggta taacgattta    200
136 ttagtacgtt ttgattcaaa ggatattgtt gataaatata    240
137 aagggaaaaa agtagacttg tatggtgctt atgctggtta    280
138 tcaatgtgcg ggtggtacac caaacaaaac agcttgtatg    320
139 tatggtggtg taacgttaca tgataataat cgattgaccg    360
140 aagagaaaaa agtgccgatc aatttatggc tagacggtaa    400
141 acaaaataca gtacctttgg aaacggttaa aacgaataag    440
142 aaaaatgtaa ctgttcagga gttggatctt caagcaagac    480
143 gttatttaca ggaaaaatat aatttatata actctgatgt    520
144 ttttgatggg aaggttcaga ggggattaat cgtgtttcat    560
145 acttctacag aaccttcggt taattacgat ttatttggtg    600
146 ctcaaggaca gtattcaaat acactattaa gaatatatag    640
147 agataataaa acgattaact ctgaaaacat gcatattgat    680
148 atatatttat atacaagtta aacatggtag ttttgaccaa    720
149 cgtaatgttc agattattat gaaccgagaa taatcta      757
151 <210> SEQ ID NO: 4
153 <211> LENGTH: 233
154 <212> TYPE: PRT
155 <213> ORGANISM: artificial sequence
156 <220> FEATURE:
157 <223> OTHER INFORMATION: mutant staphylococcal enterotoxin A cytoplasmic
159 <400> SEQUENCE: 4
161 Met Glu Lys Ser Glu Glu Ile Asn Glu Lys
162                    5                   10
163 Asp Leu Arg Lys Lys Ser Glu Leu Gln Gly
164                    15                  20
165 Thr Ala Leu Gly Asn Leu Lys Gln Ile Tyr
166                    25                  30
167 Tyr Tyr Asn Glu Lys Ala Lys Thr Glu Asn
168                    35                  40
169 Lys Glu Ser His Asp Gln Phe Arg Gln His
170                    45                  50
171 Thr Ile Leu Phe Lys Gly Phe Phe Thr Asp
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Input Set : A:\Sequence.txt
Output Set: N:\CRF4\08082002\J002784A.raw

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172                    55                    60
173 His Ser Trp Tyr Asn Asp Leu Leu Val Arg
174                    65                    70
175 Phe Asp Ser Lys Asp Ile Val Asp Lys Tyr
176                    75                    80
177 Lys Gly Lys Lys Val Asp Leu Tyr Gly Ala
178                    85                    90
179 Tyr Ala Gly Tyr Gln Cys Ala Gly Gly Thr
180                    95                   100
181 Pro Asn Lys Thr Ala Cys Met Tyr Gly Gly
182                   105                   110
183 Val Thr Leu His Asp Asn Asn Arg Leu Thr
184                   115                   120
185 Glu Glu Lys Lys Val Pro Ile Asn Leu Trp
186                   125                   130
187 Leu Asp Gly Lys Gln Asn Thr Val Pro Leu
188                   135                   140
189 Glu Thr Val Lys Thr Asn Lys Lys Asn Val
190                   145                   150
191 Thr Val Gln Glu Leu Asp Leu Gln Ala Arg
192                   155                   160
193 Arg Tyr Leu Gln Glu Lys Tyr Asn Leu Tyr
194                   165                   170
195 Asn Ser Asp Val Phe Asp Gly Lys Val Gln
196                   175                   180
197 Arg Gly Leu Ile Val Phe His Thr Ser Thr
198                   185                   190
199 Glu Pro Ser Val Asn Tyr Asp Leu Phe Gly
200                   195                   200
201 Ala Gln Gly Gln Tyr Ser Asn Thr Leu Leu
202                   205                   210
203 Arg Ile Tyr Arg Asp Asn Lys Thr Ile Asn
204                   215                   220
205 Ser Glu Asn Met His Ile Asp Ile Tyr Leu
206                   225                   230
207 Tyr Thr Ser
210 <210> SEQ ID NO: 5
212 <211> LENGTH: 1712
213 <212> TYPE: DNA
214 <213> ORGANISM: Artificial sequence
215 <220> FEATURE:
216 <223> OTHER INFORMATION: mutant staphylococcal enterotoxin B
217 <400> SEQUENCE: 5
219 gaactaggta gaaaaataat tatgagaaaa cactatgttg        40
220 ttaaagatgt tttcgtatat aagtttaggt gatgtatagt        80
221 tacttaattt taaaagcata acttaattaa tataaataac       120
222 atgagattat taaatataat taagtttctt ttaatgtttt       160
223 tttaattgaa tatttaagat tataacatat atttaaagtg       200
224 tatctagata ctttttggga atgttggata aaggagataa       240
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RAW SEQUENCE LISTING   DATE: 08/08/2002
PATENT APPLICATION: US/10/002,784A   TIME: 13:45:10

Input Set : **A:\Sequence.txt**
Output Set: **N:\CRF4\08082002\J002784A.raw**

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225 aaaatgtata agagattatt tatttcacat gtaattttga    280
226 tattcgcact gatattagtt atttctacac ccaacgtttt    320
227 agcagagagt caaccagatc ctaaaccaga tgagttgcac    360
228 aaatcgagta aattcactgg tttgatggaa gatatgaaag    400
229 ttttgtatga tgataatcat gtatcagcaa taaacgttaa    440
230 atctatagat caatttctat actttgactt aatatattct    480
231 attaaggaca ctaagttagg ggattatgat aatgttcgag    520
232 tcgaatttaa aaacaaagat ttagctgata aatacaaaga    560
233 taaatacgta gatgtgtttg gagctaatta ttattatcaa    600
234 tgttattttt ctaaaaaaac gaatgatatt aattcgcatc    640
235 aaactgacaa acgaaaaact tgtatgtatg gtggtgtaac    680
236 tgagcataat ggaaaccaat tagataaata tagaagtatt    720
237 actgttcggg tatttgaaga tggtaaaaat ttattatctt    760
238 ttgacgtaca aactaataag aaaaaggtga ctgctcaaga    800
239 attagattac ctaactcgtc actatttggt gaaaaataaa    840
240 aaactctatg aatttaacaa ctcgccttat gaaacgggat    880
241 atattaaatt tatagaaaat gagaatagct tttggtatga    920
242 catgatgcct gcaccaggag ataaatttgc ccaatctaaa    960
243 tatttaatga tgtacaatga caataaaatg gttgattcta   1000
244 aagatgtgaa gattgaagtt tatcttacga caaagaaaaa   1040
245 gtgaaattat attttagaaa agtaaatatg aagagttagt   1080
246 aattaaggca ggcacttata gagtacctgc cttttctaat   1120
247 attatttagt tatagttatt tttgttatat ctctctgatt   1160
248 tagcattaac cccttgttgc cattatagtt ttcaccaact   1200
249 ttagctgaaa ttgggggatc attttttatct ttactatgga   1240
250 tagttactgt gtcgccgttt ttaacgattt gtttctcttt   1280
251 taatttgtca gttaattttt tccatgcatc atttgcgtca   1320
252 aacctatttc catttggatt tattcttgac aaatcaattc   1360
253 ttttaacact atcggtatta atcggcttgt tattaaaatt   1400
254 actaagttca tctaaatcag ctgtacccgt aatactactt   1440
255 tcgccaccat tatttaaatt gtacgtaaca ccaactgtct   1480
256 catttgctgt tttatcgata atatttgctt ctttcaaagc   1520
257 atctcttaca tttttccata agtctctatc tgttatttca   1560
258 gaagcctttg caacgttatt aataccatta taatttgaat   1600
259 aagaatgaaa acctgaacct actgttgtta aaactaaagc   1640
260 acttgctatc aatgttcttg ttaatagttt tttattcatt   1680
261 ttattttctc ctataactta tttgcaatcg at            1712
263 <210> SEQ ID NO: 6
265 <211> LENGTH: 266
266 <212> TYPE: PRT
267 <213> ORGANISM: Artificial sequence
268 <220> FEATURE:
269 <223> OTHER INFORMATION: mutant staphylococcal enterotoxin B
270 <400> SEQUENCE: 6
272 Met Tyr Lys Arg Leu Phe Ile Ser His Val
273                   5                  10
274 Ile Leu Ile Phe Ala Leu Ile Leu Val Ile
275                  15                  20
276 Ser Thr Pro Asn Val Leu Ala Glu Ser Gln
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VERIFICATION SUMMARY
PATENT APPLICATION: US/10/002,784A

DATE: 08/08/2002
TIME: 13:45:11

Input Set : **A:\Sequence.txt**
Output Set: **N:\CRF4\08082002\J002784A.raw**

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